Consultation Paper No. 15/ 2008

Telecom Regulatory Authority of India

Consultation Paper

on

Interconnection Issues relating to

Broadcasting & Cable Services

New Delhi

December 15, 2008

PREFACE

Regulations should evolve in response to and to keep pace with new developments in the broadcasting sector, but sustaining, as far as possible, the fundamental underlying principles of non-discrimination and level playing field for fostering competition. The constant need to adapt to change is required by the ever increasing sophistication of technology and changes in market conditions.

2. The Telecommunication (Broadcasting and Cable Services) Interconnection Regulation 2004 (13 of 2004) was issued on 10th December, 2004 and The Register of Interconnect Agreements (Broadcasting and Cable Services) Regulation 2004 was issued on 31st December, 2004. These Regulations have been amended from time to time to cover some new issues.

3. There has been a marked increase in deployment of addressable platforms for distribution of TV channels in recent past. IPTV services and Voluntary CAS have been rolled out by many service providers. In near future, head-end in the sky (HITS) and mobile TV services are also likely to be available. The number of subscribers being served by the DTH services has also gone up significantly.

4. This consultation paper raises various issues relating to possible ways of filling the gaps in the existing regulatory provisions in the aforementioned Regulations and to deal with new issues arising with the advent of new technologies. The Telecom Regulatory Authority of India (TRAI) solicits the views of all the stakeholders on the issues raised in the consultation paper.

Written comments on the issues raised for consultation may please be furnished to Principal Advisor (B&CS), TRAI by 12th January, 2009. The comments may preferably be sent in electronic form. [E-mail: traicable@yahoo.co.in or rakesh.rakeshgupta@gmail.com]. The Fax number of TRAI is 011-23220442.

(Nripendra Misra)
Chairman, TRAI

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CHAPTER I: INTRODUCTION

1.1 The Authority had issued The Telecommunication (Broadcasting and Cable Services) Interconnection Regulation 2004 (13 of 2004) on 10th December, 2004 to provide for a regulatory framework for interconnection in respect of broadcasting and cable services. The Register of Interconnect Agreements (Broadcasting and Cable Services) Regulation 2004 was issued on 31st December, 2004 to provide for maintenance of a Register of Interconnect Agreements. These Regulations have been amended from time to time for amplification and modification of the existing provisions and to cover some new issues that had not been covered in the Regulations till then. Such amendments are necessitated by changes over time in the broadcasting and cable services sector on account of changes in technology and changes in market conditions.

1.2 The present consultation paper is aimed at seeking inputs from stakeholders about possible ways of filling certain gaps in the existing regulatory provisions in the aforementioned Regulations and to deal with new issues arising with the advent of new technologies. There has been a marked increase in deployment of addressable platforms for distribution of TV channels in recent past. IPTV services and Voluntary CAS have been rolled out by many service providers. In the near future, head-end in the sky (HITS) and mobile TV services are also likely to be available.

1.3 Chapter - II of the paper covers interconnection issues relating to addressable platforms. This chapter briefly covers the provisions relating to Reference Interconnect Offer for DTH platforms in the existing regulations as these provisions have facilitated the service providers in successfully entering into interconnection agreements for DTH platforms.

The need for introducing similar provisions in respect of other addressable platforms and for amendments in existing provisions for DTH platforms are also covered in this chapter.

1.4 Provisions for publication of Reference Interconnect Offer by broadcasters for non-addressable platforms were first introduced by the third amendment in the Interconnection Regulations on 4th September, 2006. With the passage of time there have been amendments in the Tariff Order for non CAS areas. These amendments have imposed certain obligations on the broadcasters in the manner in which the signals are made available to different distributors of TV channels. Chapter – III of this consultation paper deals with the issues relating to harmonization of the provisions of the Interconnection Regulations with the Tariff Order for non CAS areas.

1.5 The Regulation on Registration of Interconnection Agreements has been in force since December 2004. However, a major shortcoming of the regulation is that the oral agreements are outside the scope of this Regulation. Some stakeholders have suggested mandating written agreements for distribution of TV channels. Chapter – IV of the paper presents broad evaluation of The Register of Interconnect Agreements (Broadcasting and Cable Services) Regulation 2004.

1.6 The present consultation process is intended to achieve more effective and greater relevance to the broadcasting and cable services sector by revisiting the Telecommunication (Broadcasting and Cable Services) Interconnection Regulation 2004 and The Register of Interconnect Agreements (Broadcasting and Cable Services) Regulation 2004.

CHAPTER II: INTERCONNECTION FOR ADDRESSABLE PLATFORMS

2.1 A common Interconnection Regulation for all distribution platforms for television channels was issued by the Authority on 10th December, 2004. The Interconnection Regulation was amended on 24th August, 2006 to provide for Standard Interconnect Agreements for CAS areas. The Interconnection Regulation was again amended on 4th September, 2006 to provide for making it mandatory for broadcasters to publish their Reference Interconnect Offers (RIOs) for non addressable systems. The Regulation was last amended on 3rd September, 2007 to expand the scope of provisions for RIO to cover RIO for DTH operators also.

2.2 The Broadcasters are presently required to publish Reference Interconnect Offers (RIO) for Direct to Home (DTH) service. The relevant clause 13.2A.1 of the Interconnection Regulation reads as under:-

> ***"13.2A.1*** Every broadcaster, providing broadcasting services before the date of commencement of the Telecommunication (Broadcasting and Cable Services) Interconnection (Fourth Amendment) Regulation, 2007 (9 of 2007) and continues to provide such services after such commencement shall, within ninety days from the date of such commencement, intimate to all the direct to home operators existing on that date and coming into existence within the said period of ninety days, its Reference Interconnect Offer specifying, *inter-alia*, the technical and commercial terms and conditions for interconnection for the direct to home platform, including the following terms and conditions, namely:-
>
> (a) rates of the channels on a-la-carte basis and the rates of bouquets offered by the broadcaster to the direct to home operator;
> (b) details of discounts, if any;
> (c) payment terms;
> (d) security and anti-piracy requirements;
> (e) subscriber reports based on subscriber management system and audit;
> (f) tenure of agreement;
> (g) termination of agreements."

2.3 Under the Interconnection Regulation a time limit of 45 days has been prescribed for parties to enter into interconnect agreements. As per the regulation, the Parties may jointly request the Authority to facilitate in the process of interconnection. Offering of all channels to DTH operators on a-la-carte basis has been made compulsory for broadcasters and the Broadcasters have been prohibited from compelling any DTH operator to offer the entire bouquet or bouquets in any specific package or scheme. The regulation also provides that the Bouquet and a-la-carte prices of the channels should satisfy the twin conditions to prevent perverse pricing. Moreover, the DTH operators are permitted to repackage channels taken as a bouquet.

2.4 The regulation empowers the Authority to direct any broadcaster to modify its Reference Interconnect Offer (RIO) if the Authority is of the opinion that the Reference Interconnect Offer (RIO) published by any Broadcaster requires modifications so as to protect the interests of service providers/ consumers, to promote or ensure orderly growth of the sector or if the RIO has not been prepared in accordance with the provisions of the regulations. There is no expectation of prior approval.

2.5 Presently, the regulation requires the broadcasters to publish their Reference Interconnect Offers (RIOs) only for non-addressable systems and for Direct to Home (DTH) systems. No such provisions are there in respect of other addressable platforms such as Voluntary CAS in non-CAS areas, IPTV, HITS, Mobile TV etc. As already mentioned, the broadcasting and cable industry is witnessing a gradual transition towards deployment of addressable platforms for distribution of TV channels. Voluntary CAS in non-CAS areas is already being rolled out in different pockets across the country because of competition from DTH. There are some industry estimates that nearly one million Set Top Boxes

have been deployed in non-CAS areas of the country, as against 0.7 million in CAS areas. The Government have already issued the IPTV guidelines. Some service providers are offering IPTV services. One head-end in the sky (HITS) permission holder has already announced plans to launch the service. In the near future, mobile TV services are also likely to be available.

2.6 The vision of the Authority for broadcasting sector is to promote addressability on all TV channel distribution platforms so that as competition increases and the consumer has multiple choices, the tariff and other regulations can be softened. The important guiding principles in framing broadcasting regulations are

i) to promote digital transmission;
ii) restructuring of the sector so as to encourage investment for financial viability and technological upgradation;
iii) quality service at affordable price to the consumer; and
iv) to enhance competition.

2.7 The objective of promoting addressability can be met substantially by ensuring that the addressable platforms are able to acquire content at competitive terms and there is a reasonable degree of level playing field among different addressable platforms. The HITS permission holder and one major IPTV service provider have already informed the Authority about difficulties being faced by these addressable platforms in getting the content from broadcasters. Thus, it appears that there is a need to lay down regulatory guidelines for enabling addressable platforms to acquire content on competitive terms. The resultant competition will act as a driving force for digitalization of cable networks also. As the global experience shows, the cable industry and other alternative platforms will coexist in future. But, the Cable Industry will have to become

addressable and make full use of technology to grow in a competitive environment.

2.8.1 There have been demands from the distributors of television channels employing addressable system for extending the RIO concept prescribed for DTH services to all addressable systems. It has been argued that such a move would bring regulatory clarity in the sector and promote investments in new digital and addressable platforms. The experience of DTH sector in this regard has been encouraging. The RIO methodology has facilitated signing of interconnect agreements between new DTH operators and broadcasters.

2.8.2 While examining the issue of extending the RIO concept prescribed for DTH services to all addressable systems, it is important to keep in mind that regulatory framework for cable services in CAS notified areas is not the subject matter of this consultation. The main reason for excluding cable services in CAS notified areas from this consultation is that the roll out of addressable systems for non CAS areas is market driven as against roll out of CAS on account of judicial intervention in CAS notified areas. Such being the case, the issue of interconnection in CAS notified areas could not be left completely to market forces because CAS had to roll out on 31st December, 2006, and all preparatory work, including interconnection, completed before that date. Extension of CAS to remaining areas of Delhi, Mumbai and Kolkata has already been recommended by the Authority. An expert group consisting of members drawn from TRAI, Ministry of Information & broadcasting, Prasar Bharti, Broadcasters, MSOs, DTH operators, Cable Operator/ Distributor associations and consumer organizations was constituted by the Authority to deliberate on the issues relating to voluntary CAS. The Group has recommended extension of existing CAS regulatory framework for 55 more cities in a phased manner. The report of the group has also

been forwarded to the Government by the Authority. Any uncertainty about the regulatory framework for CAS at this stage may adversely impact extension of CAS. Therefore, the regulatory framework for cable services in CAS notified areas is not the subject matter of this consultation.

2.8.3 The proposed issues for consultation are

- **Whether the Interconnection Regulation should make it mandatory for the broadcasters to publish Reference Interconnect Offers (RIOs) for all addressable systems, and whether such RIOs should be same for all addressable systems or whether a broadcaster should be permitted to offer different RIOs for different platforms?**
- **Is there any other methodology which will ensure availability of content to all addressable platforms on non-discriminatory basis?**

2.9.1 An associated issue is that of defining addressable platforms. It is important to clearly define the criteria to be satisfied by a distribution platform so as to be entitled to get signals from the Broadcasters on terms at par with other addressable platforms. Such a stipulation is especially necessary to avoid litigation regarding eligibility or otherwise of cable networks deploying voluntary CAS.

2.9.2 The Authority had convened a round table meeting on 1st February 2007, at Delhi with various stakeholders on the subject of digitalization and Introduction of Voluntary CAS in the country. Industry experts as well as representatives of consumer organizations, multi system operators (MSOs), cable operators, DTH operators, broadcasters and equipment manufacturers participated in the round table. As a follow up,

a small Group consisting of members drawn from TRAI, Ministry of Information and Broadcasting, Prasar Bharti, Broadcasters, MSOs, DTH operators, Cable operator/Distributor associations, technical experts, consumer organizations etc. was constituted to deliberate on the issues relating to digitalization and introduction of voluntary CAS. The Group after extensive deliberations and brainstorming discussions spanning over 9 meetings submitted its recommendations to the Authority on 12.6.2007 on the best way forward for implementation of CAS in cable TV network. Annexure 'C' to the Report of the Group listed the illustrative requirements for Set-Top-Boxes (STBs), Conditional Access System (CAS) & Subscribers Management System (SMS) for implementation of Digital Addressable Systems. These are annexed as Annexure to this consultation paper. The Group felt that an MSO or a cable operator whose cable network and operations meet these requirements should be accepted as one who is offering addressable cable TV service. Further, we also need to note that the business model presently being followed by MSOs and cable operators for voluntary CAS in non-CAS areas is one in which the same cable network is offering both analogue (without encryption) and digital (with encryption) services to different subscribers, which is typical of hybrid networks. The regulatory framework would need to address this issue also.

2.9.3 Further, to avoid any disputes as to whether a cable network has fully complied with these specifications, one possible solution is to lay down pre-certification from an approved agency (such as BECIL under the Ministry of Information & Broadcasting) as a prerequisite for any distribution network seeking to get signals on terms at par with other addressable platforms. This would entail identification of such "Approved Agency" for verification of distribution systems deployed by the seekers of signals. However, one issue that would remain to be addressed is treatment of hybrid networks which carry some of the pay channels in

encrypted mode while carrying some others pay channels in unencrypted mode.

2.9.4 The proposed issues for consultation are

- **What should be the minimum specifications/ conditions that any TV channel distribution system must satisfy to be able to get signals on terms at par with other addressable platforms? Are the specifications indicated in the Annexure adequate in this regard?**
- **What should be the methodology to ensure and verify that any distribution network seeking to get signals on terms at par with other addressable platforms satisfies the minimum specified conditions for addressable systems?**
- **What should be the treatment of hybrid cable networks in non-CAS areas which provide both types of service, i.e., analogue (without encryption) and digital (with encryption) services?**

2.10.1 Currently the RIOs published by the Broadcasters restrict the DTH operators to provide the DTH services only to residential subscribers. The DTH operators are barred from supplying services to all non-residential subscribers such as hotels, lodges, guest houses, hostels, restaurants, bars, clubs, offices or business premises, schools, theatres, cinema halls, hospitals etc.. Moreover, each Broadcaster has a separate list/ classification of such non-residential subscribers. On the cable side (Both CAS & Non-CAS), "Commercial Subscribers" have been defined. Further, "Commercial Subscribers" have been segregated in two categories and one category has been given the protection of tariff order whereas tariff for the second category of "Commercial Subscribers" is under forbearance.

2.10.2 The Authority has received representations from DTH operators seeking regulatory intervention in this regard. The issue of provision of signals to "Commercial Subscribers" would affect all the addressable platforms in a similar fashion. Presently there is no regulation regarding provision of signals to addressable platforms for transmission/ re-transmission to "Commercial Subscribers". This adversely affects the commercial rights of addressable platforms as the addressable platforms are prevented/ hindered in serving a significant segment of subscribers, namely "Commercial Subscribers". It may therefore be better to bring regulatory clarity in this regard by appropriate amendments.

2.10.3 The proposed issues for consultation are

- **Whether there is a need to define "Commercial Subscribers", and what should be that definition?**
- **Whether the Broadcasters may be mandated to publish RIOs for all addressable platforms for Commercial Subscribers as distinct from broadcasters' RIOs for non-Commercial Subscribers?**

2.11.1 The RIO is an abridged version of Interconnection Agreement and lists certain important terms & conditions only. The terms & conditions not included in the RIO sometimes lead to disagreement and delay in interconnection. In the case of CAS areas, the Authority had prescribed standard interconnect agreements to ensure that there was no delay in signing of interconnect agreements. Any delay in signing of interconnection agreements can be avoided to a significant extent by mandating that the RIO should be a complete document of contract which can be used as an Interconnection Agreement. This would imply that any distributor of TV channels deploying an addressable system will

be able to enter into an interconnection agreement with a broadcaster by simply signing the RIO and no further negotiations on terms and conditions would be required.

2.11.2 The proposed issues for consultation are

- **Whether the regulation should mandate publishing of Reference Interconnect Agreements (RIAs) for addressable systems instead of Reference Interconnect Offers (RIOs)?**
- **Whether the time period of 45 days prescribed for signing of Interconnection Agreements should be reduced if RIOs are replaced by RIAs as suggested above?**

2.12 Some complaints have been received regarding clauses put by some broadcasters in the RIOs for making available their channels to subscribers for a minimum subscription period of one year. The issue of Minimum Subscription Period for any channel by a subscriber of an addressable platform is essentially a Quality of Service issue. A separate consultation process has been initiated for formulation of Quality of Service regulations for non CAS areas and the issue of Minimum Subscription Period for any channel is being posed there. It is expected that once the Quality of service regulation for non CAS areas is in place, the broadcasters would formulate their RIOs/ RIAs for addressable platforms in such a manner that the terms for making available the channels to subscribers are in conformity with the said Quality of service regulation. In case the RIOs/ RIAs impose such terms on the distribution platforms which are not in consonance with the Quality of Service Regulation, the Authority would be constrained to intervene for modification of the RIOs/ RIAs.

2.13 The issue of freedom of a DTH operator to package the content received from broadcasters is governed by clause 13.2A.11 of the interconnect regulations. The relevant clause reads as under:-

> "13.2A.11 It shall be mandatory on the part of the broadcasters to offer pay channels on a-la-carte basis to direct to home operators and such offering of channels on a-la-carte basis shall not prevent the broadcaster from offering such pay channels additionally in the form of bouquets:
>
> Provided that no broadcaster shall, directly or indirectly, compel any direct to home operator to offer the entire bouquet or bouquets offered by the broadcaster to such operator in any package or scheme being offered by such direct to home operator to its direct to home subscribers."

However, complaints have been received from DTH operators regarding clauses put by some broadcasters in the RIOs for compulsory placement of their channels in all such packages where leading channels of the same genre are placed. Such a stipulation takes away the flexibility available with the platform owner to package the content in such a way as to best serve the interests of the subscribers and may lead to extra financial burden on subscribers for subscribing to a package which has too many channels of the same genre while the subscribers may be interested in subscribing to only a few of them. On the other hand, such a clause prevents discrimination by the distribution platform owner amongst channels.

2.14 Similarly complaints have been received from DTH platforms regarding insistence of some broadcasters to dictate/ determine the retail price at which the channels are to be distributed. Since the broadcasters provide their channels/ bouquets to the DTH platforms at prices which are 50% of the prices of such channels/ bouquets for non CAS cable distribution, benefit of high retail price of channels/ bouquets does not accrue to the broadcasters. Hence, such a stipulation may have been put

by the broadcasters to ensure that their channels are not distributed at very high margins by the distribution platforms. High retail prices would lead to a reduction in number of subscribers subscribing to such channels/ bouquets and adversely affect the revenues of the broadcasters. On the other hand, the addressable platform owners may say that they also price the channels/ bouquets in such a way so as to maximize the profits and this would automatically take care of broadcasters' interests also. The DTH operators may also say that existence of ceiling on cable TV charges in CAS and non-CAS areas, coupled with the competition among five pay DTH operators and cable operators, is enough to ensure that retail prices are not high.

2.15 There have also been complaints regarding clauses put by some broadcasters in their RIOs which seek an undertaking from the distribution platforms regarding subscription to future channels to be launched by the broadcaster. Clause 13.2A.11 of the interconnect regulations mandate the broadcasters to offer pay channels on a-la-carte basis to direct to home operators. Offering of channels on a-la-carte basis implies offering of channels for subscription independent of subscription to "any other channel". This "any other channel" could be an existing channel or it could even be a future channel. Hence, any precondition regarding an undertaking to subscribe to future channels to be launched by the broadcaster would violate the Clause 13.2A.11. In such cases, the Authority may be constrained to intervene for modification of the RIOs/ RIAs.

2.16 The proposed issues for consultation are

- **Whether the regulation should specifically prohibit the broadcasters from imposing any kind of restrictions on packaging of channels on an addressable platform?**

- **Whether the regulation should specifically prohibit the broadcasters from imposing any kind of restrictions on pricing of channels on an addressable platform?**

CHAPTER III: INTERCONNECTION FOR NON-ADDRESSABLE PLATFORMS

3.1 As already mentioned in Chapter – II, a common Interconnection Regulation for all distribution platforms for television channels was issued by the Authority on 10th December, 2004. The amendments made to the Interconnection Regulation on 4th September, 2006 made it mandatory for broadcasters to publish their Reference Interconnect Offers (RIOs) for non addressable systems. The scope of provisions for RIO was expanded to cover RIO for DTH operators also vide amendments to the Regulation made on 3rd September, 2007.

3.2 The Interconnection Regulation requires the Broadcasters to submit to the Authority copies of their Reference Interconnect Offers (RIOs) for non-addressable systems describing the technical and commercial conditions for interconnection for non-addressable systems. The relevant clause 13.1 of the Interconnect regulation reads as under:-

> "13.1 All broadcasters shall submit within 90 days of issue of this Regulation, copies of their Reference Interconnect Offers (RIO) describing, inter-alia, the technical and commercial conditions for interconnection for non-addressable systems to the Authority. The same shall be published by the broadcasters and a copy shall also be put up on their websites after the terms and conditions of the draft reference interconnect offer are submitted to the Authority. The reference interconnect offer so published by the broadcaster shall form the basis for all interconnection agreements to be executed thereafter."

3.3 The Reference Interconnect Offers (RIOs) of the Broadcasters would normally form the basis for interconnection agreements for non-addressable systems executed by the broadcasters, even though the

parties concerned may modify the terms and conditions stipulated in the RIO by mutual agreement.

3.4 Although the requirement of issuing RIOs for non-addressable systems was laid down by amending Interconnect Regulation on September 4, 2006, the details to be given in the RIO were not specified by the Regulation. The amendment dated 4th October, 2007 in the non-CAS Tariff Order has made it mandatory for Broadcasters to offer their channels on a-la-carte basis also. However, it is seen that the RIOs for non-addressable systems published by the Broadcasters do not have details about a-la-carte rates of channels. This is in contrast to the RIOs for DTH operators which specifically list the rates of channels and bouquets, details of discounts, payment terms and anti-piracy requirements amongst other terms. Although, for a non addressable system, most of the commercial terms and conditions would be subject matter of negotiations, offering of signals on a-la-carte basis is a regulatory requirement laid down by the non-CAS Tariff Order. Therefore, it appears that an amendment may be necessary to require the broadcasters to include details of a-la-carte rates of channels in their RIO for non-addressable systems in order to harmonize the provisions of interconnection regulations with those of the tariff order. While examining the desirability of mandating inclusion of a-la-carte rates of channels in the RIO for non-addressable systems, it may be expedient to examine whether any other details also need to be included in the RIO for non-addressable systems.

3.5 The proposed issues for consultation are

- **Whether the terms & conditions and details to be specifically included in the RIO for non-addressable systems should be specified by the Regulation as has been done for DTH?**

- **What terms & conditions and details should be specified for inclusion in the RIO for non-addressable systems?**

CHAPTER IV: GENERAL INTERCONNECTION ISSUES

4.1 The objectives of the Authority while regulating the broadcasting and cable sector are to protect the interests of service providers and consumers of the broadcasting and cable sector, and to promote and ensure orderly growth of the broadcasting and cable sector. In order to protect interests of consumers, the Quality of Service regulations have been issued by the Authority for CAS areas and a consultation process has been separately initiated by the Authority for laying down Quality of Service regulations for non CAS areas. Similarly, the Interconnect Regulations have been issued with the objective of promoting and ensuring orderly growth of the broadcasting industry.

4.2 The regulations on interconnection and quality of service have been issued with different objectives and there are different mechanisms for implementation of these regulations. However, there is a need to harmonize the two regulations by providing that a service provider will get protection under interconnect regulations only if that service provider is not in violation of the quality of service regulations. This will ensure that any service provider who is not fulfilling its obligations under quality of service regulations does not enjoy the benefits/ protections accorded to the service providers under interconnect regulations.

4.3 The proposed issue for consultation is

- **Whether it should be made mandatory that <u>before</u> a service provider becomes eligible to enjoy the benefits/ protections accorded under interconnect regulations, he must first establish that he fulfills all the requirements under quality of service regulations as applicable?**

4.4 Some of the broadcasters have complained that while the broadcasters are required to provide signals of their TV channels on non-discriminatory terms to all distributors of TV channels in view of Clause 3.2 of the Interconnect Regulations, there is no corresponding obligation on the distributors of TV channels to carry such TV channels without charging carriage fee. It has also been alleged that the distributors of TV channels are demanding higher and higher carriage and placement fees for carrying the signals of TV channels.

4.5 The proposed issue for consultation is

- **Whether applicability of clause 3.2 of the Interconnect Regulation should be restricted so that a distributor of TV channels is barred from seeking signals in terms of clause 3.2 of the Interconnect Regulation from a broadcaster for those channels in respect of which carriage fee is being demanded by the distributor of TV channels from the broadcaster?**

4.6 The broadcasters have been raising the issue of unbridled increase in carriage fees being demanded/ charged by the distributors of TV channels. The issue of regulation of carriage fee was earlier raised for consultation in the Consultation Paper on Interconnection Issues relating to Broadcasting & Cable Services released on May 11, 2006. Even as the Authority decided not to regulate carriage fee at that time, the matter was discussed in detail in the Explanatory Memorandum to The Telecommunication (Broadcasting and Cable Services) Interconnection (Third Amendment) Regulation, 2006 issued on 4th September, 2006. The relevant extracts of the Explanatory Memorandum are reproduced below:-

"Carriage fee regulation

17. Regulation of carriage fees has been opposed by all the multi system operators as well as the Cable Operators Federation of India. It

has been suggested that such regulation would lead to multiplicity of disputes. Regulation of carriage fee in the present circumstances is very difficult as it also implies regulation of positioning. In different parts of the country, there are different viewership patterns. The capacities of cable networks also vary a great deal. Thus, the levels of carriage fee are different in different parts of the country depending upon demand and supply gap.

Presently, there are more than 6000 multi system operators, which follow different systems of accounting. Payment of carriage fee is very often done in cash or in kind. Thus, it is not possible to find out the actual payments being made towards carriage fees.
The carriage fee is a temporary phenomenon and is likely to disappear with the advent of digital cable systems.

The issue of carriage fee was also examined by the Authority in its recommendations on issues relating to Broadcasting and Distribution of TV channels on 1.10.2004. The Authority had observed that:-

> *"6.5 On the issue of 'Must Carry of TV Channels' the existing scenario of capacity constraint in carrying signals in analogue mode and its consequences of competition for space on the Cable Spectrum has been kept in view. Since digitalisation is a long-term goal, no fresh regulation on 'Must Carry Obligations' is proposed apart from the ones already there in the Cable Act and Rules. As and when capacity is augmented the 'must carry' regulation will be introduced. For the present therefore there will be no regulation on carriage charges."*

In its recommendations on Digitalisation of Cable Television dated September 14, 2005, the Authority had recommended that licencing should be introduced for offering of digital services after a cut-off date. It was also recommended that the licences for digital service should have only a provision for non-discriminatory carriage of channels on the basis of the existing DTH licence conditions which require that the licensee shall provide access to various content providers/channels on a non discriminatory basis."

4.7 More than two years have passed since the Authority last looked into the issue of carriage fee. Over this period, the market conditions have changed necessitating a relook on the subject. The main grievances of broadcasters with reference to carriage fee relate to lack of transparency, periodicity and symmetry in carriage fee payments. Lack of

transparency refers to the fact that the details relating to carriage fee charged from different broadcasters are not disclosed by the distributors of TV channels. At the same time, it must also be kept in mind that the information relating to subscription fee charged from different distributors is kept confidential by the broadcasters.

4.8 As regards periodicity, the main issue is that of sanctity of agreements. Once having entered into an agreement for carriage of certain channels at specific frequency spots on agreed terms and conditions (including carriage fee) for a given period, any deviation from the same on the part of the distributor of TV channels by asking for an increase in carriage fee violates the sanctity of the agreement.

4.9 The issue of symmetry in payment of carriage fee implies symmetric treatment of all channels/ broadcasters. However, the issue of carriage fee demanded with reference to any particular channel is intimately linked with the perceived demand and popularity of that particular channel among the subscribers. The decision of any broadcaster regarding nature of a channel (i.e., pay or FTA) or the price to be charged for any pay channel has nexus with the popularity of the channel.

4.10 There are a few other features associated with carriage fee. One of these relates to the financial side, namely, whether there should be some kind of ceiling on carriage fee. The downsides to such a regulation are many, for example, how to fix ceiling on carriage fee without regulating the advertisement charges when the two are intimately linked; how to relate such a ceiling to popularity of a channel when popularity keeps varying even over short periods; how to decide on sharing of carriage fee between MSO and LCOs, etc. At the same time, the other features of carriage fee may need to be ensured. These other features are stability

(i.e., carriage fee agreements should not be altered during its currency), transparency (i.e., carriage fee requirements of a distributor should be known to all and in public domain in a transparent manner), predictability (i.e., a broadcaster should be able to assess his carriage fee burden for various distributors and platforms), and periodicity (i.e., the tenure of carriage fee agreements and periodicity of its revision should not be left open ended). Yet another feature of carriage fee is its nexus with TAM/TRP ratings. As is well known, the phenomenon of carriage fee exists mostly in TAM cities and towns. This is because the advertisers go by TRP ratings of popularity confined to TAM cities and towns, and the popularity of the channel in other cities and towns ceases to matter. A view needs to be taken as to which of the above mentioned features need to be regulated, if at all, and in what manner.

4.11 Therefore, the proposed issues for consultation are

- **Whether there is a need to regulate certain features of carriage fee, such as stability, transparency, predictability and periodicity, as well as the relationship between TAM/TRP ratings and carriage fee?**
- **If so, then what should the manner of such regulation be?**

4.12 It has already been clarified earlier that the issue of extension of CAS is under consideration of the Government and any uncertainty about the regulatory framework for CAS at this stage might adversely impact roll out of CAS. Therefore, the regulatory framework for cable services in CAS notified areas is not the subject matter of this consultation. However, with the imminent roll out of services by HITS operators, the issue of provision of services to cable operators in CAS areas by the HITS operators has now come up. The standard interconnect agreements for CAS areas were prescribed by the Authority vide the amendment made to the interconnect regulation on 24th August,

2006. Clause 2.2 of the standard interconnect agreement between broadcasters and MSOs reads as under:-

> "2.2 The subscription rights given to the Affiliate under this Agreement are confined to subscribers having an addressable set top box, in relation to whom the Affiliate compulsorily maintains the complete detailed data and transaction records in its CAS/ Subscriber Management System (SMS). This Agreement does not give the Affiliate or his agents rights to transmit by any mode of transmission from the head end of the Affiliate to the commercial operators and/or its subscribers other than through coaxial or optic fiber cable. A separately negotiated agreement would have to be entered into for the purpose of transmission through any other means such as DTH or HITS or any other mode."

4.13 Clause 2.2 of the standard interconnect agreement between broadcasters and MSOs specifically prohibits the Affiliate or his agents from transmitting signals by any mode of transmission from the head end of the Affiliate to the subscribers other than through coaxial or optic fiber cable. This clause also mentions that a separate negotiated agreement would have to be entered for transmission through HITS. This implies that any MSO duly approved by the Government for providing services in CAS areas can not utilize the infrastructure of a HITS operator for carriage of signals to the MSO's affiliate cable operators in CAS areas.

4.14 The proposed issue for consultation is

- **Whether the standard interconnect agreement between broadcasters and MSOs should be amended to enable the MSOs, which have been duly approved by the Government for providing services in CAS areas, to utilize the infrastructure of a HITS operator for carriage of signals to the MSO's affiliate cable operators in CAS areas?**

4.15 The explanatory memorandum to the interconnect amendment regulation dated 24th August, 2006 covered the specific issue of standard interconnect agreements for HITS also. Para 3 of the explanatory memorandum covered the issues relating to standard interconnect agreements. Sub para B.3 of the para 3 reads as under-

> **"The agreement should also cover other modes of distribution also specially HITS.**
>
> *The broad features of this agreement can be applied to HITS also. However HITS can also reach the entire country and therefore there may be need for other clauses to protect the IPR of the broadcasters. Those operators who want to use HITS should use this standard interconnection agreement and finalise the same with the broadcasters with whatever changes may be necessary for HITS. In case of any difficulty they can come back to the Authority for issue of appropriate directions or regulations."*
>
> **(Comments of stakeholders in Bold – the Authority's comments in Italics)**

4.16 The proposed issue for consultation is

- **Whether the standard interconnect agreement between broadcasters and HITS operators need to be prescribed by the Authority, and whether these should be broadly the same as prescribed between broadcasters and MSOs in CAS notified areas?**

4.17 Sub clause (1) of Clause 9 of the Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007 specifically provides that "No direct to home operator shall, increase the charges for a subscription package offered by him, to the disadvantage of the direct to home subscriber, or change the charges to the disadvantage of the direct to home subscriber for a minimum period of six months from the date of enrolment of the subscriber for

such subscription package." For the subscribers, any subscription package is characterized by the specific channels included in the package and the charges payable towards the package. The subscribers would be put to disadvantage in case of any increase in the subscription charges for the package or if some channels are dropped from the package even if the subscription charges are not increased. This sub clause covers the instances of change in charges to the disadvantage of the direct to home subscriber for a minimum period of six months from the date of enrolment of the subscriber for such subscription package. Therefore, no DTH operator can drop any channel for a period of six months from the date of enrolment of last subscriber to that subscription package. This implies that when the interconnection agreement in respect of any particular channel is due to expire in six months, the DTH operators should stop enrolment of subscribers for any package in which such a channel is included so that no subscriber is deprived of the six months protection laid down in the regulation. Alternatively, the DTH operators could continue to offer the packages in which such a channel is included till the date of expiry of the interconnection agreement. After the expiry of the interconnection agreement, the broadcasters could continue to give the signals of the channel for a further period of six months solely for supply of such signals to only the subscribers covered under the six month protection period. The number of such subscribers would keep on diminishing as time passes and after six months from the date of expiry, no such subscribers, who are eligible for six months protection would be left.

4.18 Both the alternatives have their advantages and disadvantages. While, in the first alternative, the broadcaster does not have to provide signals after expiry of agreement, it loses out on subscription fee in respect of the subscribers enrolled in the last six months. Further, in case the DTH operator and the broadcaster ultimately agree to renew the

agreement, such a six month period of stopped subscription adversely affects both the parties. In the second alternative, the broadcaster gets the benefit of subscription fee in respect of subscribers enrolled till the date of expiry, it is forced to serve the subscribers enrolled in last six months on old terms and conditions.

4.19 The DTH operator is required to comply with the provisions of the Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007. As already mentioned, the DTH operator is dependent upon the broadcasters fpr complying with the Sub clause (1) of Clause 9 of these regulations. There is no corresponding obligation on the broadcasters to continue to supply signals to DTH operator for a further period of six months to ensure that the DTH operator is able to comply with the aforementioned provisions.

4.20 The proposed issue for consultation is

- **What further regulatory measures need to be taken to ensure that DTH operators are able to provide six month protection for subscribers as provided by Sub clause (1) of Clause 9 of the Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007?**
- **Towards this objective, should it be made mandatory for broadcasters to continue to provide signals to DTH operators for a period of six months after the date of expiry of interconnection agreement to enable the DTH operators to discharge their obligation?**
- **Is there any other regulatory measure which will achieve the same objective?**

CHAPTER V: REGISTRATION OF INTERCONNECTION AGREEMENTS

5.1 The Telecom Regulatory Authority of India Act, 1997 lays down the powers and functions of the Authority. As per sub-clauses (vii) & (viii) of clause (b) of sub-section (1) of Section 11 of the Telecom Regulatory Authority of India Act, 1997 the Telecom Regulatory Authority of India is required to maintain a register of interconnect agreements and to keep such register open for inspection to any member of public on payment of such fee and compliance of such other requirement as may be provided in the regulations.

5.2 The Register of Interconnect Agreements Regulation had been issued by the Authority on 31st December 2004 to discharge the functions entrusted upon the Authority in terms of sub-clauses (vii) & (viii) of clause (b) of sub-section (1) of Section 11 of the Telecom Regulatory Authority of India Act, 1997. The Regulation was amended on 4th March, 2005 to bring it in line with The Telecom Regulatory Authority of India (Access to Information) Regulation, 2005. The Regulation was again amended on 2nd December, 2005 to enable the Authority to specify the procedure for filing of data, formats for filing and other procedural issues through a simplified process instead of amending the regulation. The Regulation was last amended on 10th March, 2006 to expand the scope of provisions to require the DTH operators also to file their Interconnect agreements.

5.3 Interconnect Regulations as they stand today, do not necessarily require all the interconnection agreements to be in a written form. In fact the Interconnect Regulations recognize the oral agreements also.

Regulation 4.1 of the Interconnect Regulations as amended from time to time stipulates that "*…a notice would also be required before disconnection of signals to a distributor of TV channels if there was an agreement, written or* ***oral****, permitting the distribution of the broadcasting service, which has expired due to efflux of time*."

5.4 Absence of a written agreement often leads to disputes and litigation. There is no way of recording the oral agreements in the Register of Interconnect Agreements. It has been represented by different stakeholders from time to time that the Authority should mandate that in future, all Interconnection Agreements should be in writing.

5.5 Proposed issues for consultation are

- **Whether it should be made mandatory for all interconnect agreements to be reduced to writing?**
- **Whether it should be made mandatory for the Broadcasters/ MSOs to provide signals to any distributor of TV channels only after duly executing a written interconnection agreement?**
- **Whether no regulatory protection should be made available to distributors of TV channels who have not executed Interconnect Agreements in writing?**

5.6 Even in cases, where the service-providers have entered into written interconnect agreements, sometimes there are complaints from cable operators about being forced to sign blank agreements and not being provided with a copy of Interconnection Agreement signed by the Broadcaster/ MSO. There have been instances when some independent cable operators have sought details regarding their own interconnection agreements by inspection of Register of Interconnect Agreements. Such a

situation defeats the advantages of having written interconnect agreements as one of the parties to the agreement remains in dark about the terms and conditions of the agreement. This problem can be overcome by ensuring that the copies of interconnect agreements are made available to the distributors of TV channels.

5.7 The issues proposed for consultation are

- **How can it be ensured that a copy of signed interconnection agreement is given to the distributor of TV channels?**
- **Whether it should be the responsibility of the Broadcaster to hand over a copy of signed Interconnect Agreement to MSO or LCO as the case may be, and obtain an acknowledgement in this regard? Whether similar responsibility should also be cast on MSOs when they are executing interconnection agreements with their affiliate LCOs?**
- **Whether the broadcasters should be required to furnish a certificate to the effect that a signed copy of the interconnect agreement has been handed over to all the distributors of television channels and an acknowledgement has been received from them in this regard while filing the details of interconnect agreements in compliance with the Regulation?**

5.8 The details of interconnect agreements are filed quarterly by all pay broadcasters and DTH operators in compliance with The Register of Interconnect Agreements (Broadcasting and Cable Services) Regulation 2004. However, the Industry practice is largely to sign Interconnection Agreements on annual basis. At the same time, the process of signing of interconnection agreements continues throughout the year on account of agreements with new distributors of TV channels, launch of new channels/ bouquets, amendments in terms and conditions of existing

agreements etc. In case of DTH, the Interconnection agreements are sometimes for five years or for even longer durations. The details of interconnection agreements filed by the broadcasters/ DTH operators are confidential in nature, hence proper handling of such documents is required.

5.9 One possible solution is to reduce the frequency of filing of details of interconnect agreements by broadcasters/ DTH operators. However, appropriate provisions may have to be inserted in the regulations for enabling the Authority to ask for the interconnect agreements, signed subsequent to periodic filing of details of interconnect agreements, after giving a reasonable notice to the Broadcaster/ DTH operator as the case may be.

5.10 No retention period of the filings made by the broadcasters/ DTH operators has been specified in the regulation as of now. In a fast changing industry, old data is not relevant for analysis or even as a reference point in cases of dispute. The number of agreements is not very large for DTH operators and can also be conveniently filed in the form of CDs of scanned documents. However, this may have confidentiality issues.

5.11 Proposed issues for consultation are

- **Whether the periodicity of filing of Interconnect agreements be revised?**
- **What should be the due date for filing of information in case the periodicity is revised?**
- **What should be a reasonable notice period to be given to the Broadcaster/ DTH operator as the case may be, by the Authority while asking for any specific interconnect**

agreements, signed subsequent to periodic filing of details of interconnect agreements?

- **What should be the retention period of filings made in compliance of the Regulation?**
- **Whether the broadcasters and DTH operators should be required to file the data in scanned form in CDs/ DVDs?**

5.12 Clause 3.2 of the Interconnect Regulation requires the Broadcasters/ MSOs to provide signals on request to all distributors of TV channels on non-discriminatory terms.

The Clause reads as under:-

> *"3.2 Every broadcaster shall provide on request signals of its TV channels on non-discriminatory terms to all distributors of TV channels, which may include, but be not limited to a cable operator, direct to home operator, multi system operator, head ends in the sky operator; Multi system operators shall also on request re-transmit signals received from a broadcaster, on a non-discriminatory basis to cable operators.*
>
> *Provided that this provision shall not apply in the case of a distributor of TV channels having defaulted in payment.*
>
> *Provided further that any imposition of terms which are unreasonable shall be deemed to constitute a denial of request…"*

Thus, the "must provide" clause is not applicable in the case of a payment defaulter and at the same time, any imposition of terms which are unreasonable is deemed to constitute a denial of request.

5.13 The details filed by the Broadcaster in respect of Interconnection Agreements are kept confidential. It is not possible for any distributor of TV channels to know about the terms on which the signals are being provided to other distributors of TV channels. It is accordingly not possible for a distributor of TV channels to find out whether he is being

discriminated against. Thus, automatic implementation of non-discrimination clause in interconnect regulation is practically difficult in view of interconnect agreements being kept confidential.

5.14 At the same time, some broadcasters may also say that disclosure of the information relating to terms and conditions on which the signals are being provided to different distributors of TV channels may adversely affect the business interests of the broadcasters. Some distributors of TV channels may also say that they would be able to negotiate better deals with any broadcaster, if the broadcaster feels that the same terms will not be taken as a precedent and demanded as a matter of right by other distributors of TV channels.

5.15 Proposed issues for consultation are

- **Whether the interconnection filings should be placed in public domain?**
- **Is there any other way of effectively implementing non-discrimination clause in Interconnect Regulation while retaining the confidentiality of interconnection filings?**

CHAPTER VI: ISSUES FOR CONSULTATION

6.1 The interconnection issues relating to broadcasting & cable services on which comments of the stakeholders have been solicited are covered in detail in the preceding chapters. The specific issues for consultation are reproduced in this chapter for ease of reference.

6.2 Interconnection for Addressable Platforms

6.2.1 Whether the Interconnection Regulation should make it mandatory for the broadcasters to publish Reference Interconnect Offers (RIOs) for all addressable systems, and whether such RIOs should be same for all addressable systems or whether a broadcaster should be permitted to offer different RIOs for different platforms?

6.2.2 Is there any other methodology which will ensure availability of content to all addressable platforms on non-discriminatory basis?

6.2.3 What should be the minimum specifications/ conditions that any TV channel distribution system must satisfy to be able to get signals on terms at par with other addressable platforms? Are the specifications indicated in the Annexure adequate in this regard?

6.2.4 What should be the methodology to ensure and verify that any distribution network seeking to get signals on terms at par with other addressable platforms satisfies the minimum specified conditions for addressable systems?

6.2.5 What should be the treatment of hybrid cable networks in non-CAS areas which provide both types of service, i.e., analogue (without encryption) and digital (with encryption) services?

6.2.6 Whether there is a need to define “Commercial Subscribers”, and what should be that definition?

6.2.7 Whether the Broadcasters may be mandated to publish RIOs for all addressable platforms for Commercial Subscribers as distinct from broadcasters' RIOs for non-Commercial Subscribers?

6.2.8 Whether the regulation should mandate publishing of Reference Interconnect Agreements (RIAs) for addressable systems instead of Reference Interconnect Offers (RIOs)?

6.2.9 Whether the time period of 45 days prescribed for signing of Interconnection Agreements should be reduced if RIOs are replaced by RIAs as suggested above?

6.2.10 Whether the regulation should specifically prohibit the broadcasters from imposing any kind of restrictions on packaging of channels on an addressable platform?

6.2.11 Whether the regulation should specifically prohibit the broadcasters from imposing any kind of restrictions on pricing of channels on an addressable platform?

6.3 Interconnection for non-addressable platforms

6.3.1 Whether the terms & conditions and details to be specifically included in the RIO for non-addressable systems should be specified by the Regulation as has been done for DTH?

6.3.2 What terms & conditions and details should be specified for inclusion in the RIO for non-addressable systems?

6.4 General Interconnection Issues

6.4.1 Whether it should be made mandatory that before a service provider becomes eligible to enjoy the benefits/ protections accorded under interconnect regulations, he must first establish that he fulfills all the requirements under quality of service regulations as applicable?

6.4.2 Whether applicability of clause 3.2 of the Interconnect Regulation should be restricted so that a distributor of TV channels is barred from seeking signals in terms of clause 3.2 of the Interconnect Regulation from a broadcaster for those channels in respect of which carriage fee is being demanded by the distributor of TV channels from the broadcaster?

6.4.3 Whether there is a need to regulate certain features of carriage fee, such as stability, transparency, predictability and periodicity, as well as the relationship between TAM/TRP ratings and carriage fee.

6.4.4 If so, then what should the manner of such regulation be.

6.4.5 Whether the standard interconnect agreement between broadcasters and MSOs should be amended to enable the MSOs, which have been duly approved by the Government for providing services in CAS areas, to utilize the infrastructure of a HITS operator for carriage of signals to the MSO's affiliate cable operators in CAS areas?

6.4.6 Whether the standard interconnect agreement between broadcasters and HITS operators need to be prescribed by the Authority, and whether these should be broadly the same as prescribed between broadcasters and MSOs in CAS notified areas?

6.4.7 What further regulatory measures need to be taken to ensure that DTH operators are able to provide six month protection for subscribers as provided by Sub clause (1) of Clause 9 of the Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007?

6.4.8 Towards this objective, should it be made mandatory for broadcasters to continue to provide signals to DTH operators for a period of six months after the date of expiry of interconnection

agreement to enable the DTH operators to discharge their obligation?

6.4.9 Is there any other regulatory measure which will achieve the same objective?

6.5 Registration of Interconnection Agreements

6.5.1 Whether it should be made mandatory for all interconnect agreements to be reduced to writing?

6.5.2 Whether it should be made mandatory for the Broadcasters/ MSOs to provide signals to any distributor of TV channels only after duly executing a written interconnection agreement?

6.5.3 Whether no regulatory protection should be made available to distributors of TV channels who have not executed Interconnect Agreements in writing?

6.5.4 How can it be ensured that a copy of signed interconnection agreement is given to the distributor of TV channels?

6.5.5 Whether it should be the responsibility of the Broadcaster to hand over a copy of signed Interconnect Agreement to MSO or LCO as the case may be, and obtain an acknowledgement in this regard? Whether similar responsibility should also be cast on MSOs when they are executing interconnection agreements with their affiliate LCOs?

6.5.6 Whether the broadcasters should be required to furnish a certificate to the effect that a signed copy of the interconnect agreement has been handed over to all the distributors of television channels and an acknowledgement has been received from them in this regard while filing the details of interconnect agreements in compliance with the Regulation?

6.5.7 Whether the periodicity of filing of Interconnect agreements be revised?

6.5.8 What should be the due date for filing of information in case the periodicity is revised?

6.5.9 What should be a reasonable notice period to be given to the Broadcaster/ DTH operator as the case may be, by the Authority while asking for any specific interconnect agreements, signed subsequent to periodic filing of details of interconnect agreements?

6.5.10 What should be the retention period of filings made in compliance of the Regulation?

6.5.11 Whether the broadcasters and DTH operators should be required to file the data in scanned form in CDs/ DVDs?

6.5.12 Whether the interconnection filings should be placed in public domain?

6.5.13 Is there any other way of effectively implementing non-discrimination clause in Interconnect Regulation while retaining the confidentiality of interconnection filings?

ANNEXURE

Annexure C to the report submitted by the Group on Digitalization and Introduction of Voluntary CAS

Illustrative requirements for Set-Top-Boxes (STBs), Conditional Access System (CAS) & Subscribers Management System (SMS) for implementation of Digital Addressable Systems

(A) STB Requirements:

1. All the STBs should have embedded Conditional Access.
2. The STB should be capable of decrypting the Conditional Access inserted by the Headend.
3. The STB should be capable of doing the Overt and Covert Finger printing. The box should support both Entitlement Control Message (ECM) & Entitlement Management Message (EMM) based fingerprinting.
4. The box should be individually addressable from the Headend.
5. The box should be able to take the messaging from the Headend.
6. The messaging character length should be minimal 120 characters.
7. There should be provision for the global messaging, group messaging and the individual box messaging.
8. The box should have forced messaging capability.
9. The box must be BIS compliant.
10. There should be a system in place to secure content between decryption & decompression within the STB.
11. The boxes should be addressable over the air to facilitate Over The Air (OTA) software upgrade.

(B) Fingerprinting Requirements:

1. The finger printing should not be removable by pressing any key on the remote.
2. The Finger printing should be on the top most layer of the video.
3. The Finger printing should be such that it can identify the STB or the Viewing Card (VC).
4. The Finger printing should appear on all the screens of the STB, such as Menu, EPG etc.
5. The location of the Finger printing should be changeable from the Headend and should be random on the viewing device.
6. The Finger printing should be able to give the numbers of characters as to identify the unique STB and/ or the VC.
7. The Finger printing should be possible on global as well as on the individual STB basis.
8. The Overt finger printing and On screen display messages of the respective broadcasters should be displayed by the MSO/LCO

without any alteration with regard to the time, location, duration and frequency.

9. No common interface Customer Premises Equipment (CPE) to be used.
10. The box should have a provision that OSD is never disabled.

(C) CAS & SMS Requirements:

1. The current version of the conditional access system should not have any history of the hacking.
2. The fingerprinting should not get invalidated by use of any device or software.
3. The STB & VC should be paired from head-end to ensure security.
4. The SMS and CA should be integrated for activation and deactivation process from SMS to be simultaneously done through both the systems. Further, the CA system should be independently capable of generating log of all activations and deactivations.
5. The CA company should be known to have capability of upgrading the CA in case of a known incidence of the hacking.
6. The SMS & CAS should be capable of individually addressing subscribers, on a channel by channel and STB by STB basis.
7. The SMS should be computerized and capable to record the vital information and data concerning the subscribers such as:
    a. Unique Customer Id
    b. Subscription Contract no
    c. Name of the subscriber
    d. Billing Address
    e. Installation Address
    f. Landline no
    g. Mobile No
    h. Email id
    i. Service /Package subscribed to
    j. Unique STB No
    k. Unique VC No

8. The SMS should be able to undertake the:
    a. Viewing and printing historical data in terms of the activations, deactivations etc
    b. Location of each and every set top box/VC unit
    c. The SMS should be capable of giving the reporting at any desired time about:
        i. The total no subscribers authorized
        ii. The total no of subscribers on the network
        iii. The total no of subscribers subscribing to a particular service at any particular date.

iv. The details of channels opted by subscriber on a-la carte basis.
v. The package wise details of the channels in the package.
vi. The package wise subscriber numbers.
vii. The ageing of the subscriber on the particular channel or package
viii. The history of all the above mentioned data for the period of the last 2 years

9. The SMS and CAS should be able to handle at least one million concurrent subscribers on the system.
10. Both CA & SMS systems should be of reputed organization and should have been currently in use by other pay television services that have an aggregate of at least one million subscribers in the global pay TV market.
11. The CAS system provider should be able to provide monthly log of the activations on a particular channel or on the particular package.
12. The SMS should be able to generate itemized billing such as content cost, rental of the equipments, taxes etc.
13. The CA & SMS system suppliers should have the technical capability in India to be able to maintain the system on 24x7 basis throughout the year.